

Appl. No. 10/636,055
Amdt. Dated October 4, 2004
Reply to Office Action of September 21, 2004

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0006] with the following amended paragraph:

[0006] U.S. Patent No. 6,393,802 to Bowser et al. (hereinafter the "Bowser patent") may disclose an oxygen concentrator that is adapted to supply therapeutic gas to the patient and/or to a cylinder filler, which cylinder filler is controlled to automatically fill a portable cylinder. Much like the Litton patent, the Bowser patent discloses a an enriched gas product from an oxygen concentrator split into a first stream provided to a compressor (which may then be provided to fill a cylinder), and a second stream provided to a patient (possibly after proceeding through a flow regulator). The Bowser patent also discloses that prior to filling a cylinder, the gas pressure of the portable cylinder should be measured. If the gas pressure of the portable cylinder is below a predetermined safe minimum, the cylinder is not filled. The Bowser patent indicates this may be desirable because a cylinder having very little residual gas pressure may have been left open and the interior of the cylinder may have become contaminated.

Please replace paragraph [0027] with the following amended paragraph:

[0027] While using an oxygen-selective sensor may provide an indication as to the percentage of oxygen in the gas, oxygen selective sensors may be unable to detect the type and presence of other, possible-possibly harmful, gases. Likewise with respect to the time-of-flight density sensors, a density measurement standing alone may not be able to detect the presence of contaminants, particularly where those contaminants have density similar to the therapeutic gas. Thus, in some embodiments the gas sensing device 28 may be a combination of an oxygen-selective sensor and a density sensor. In these embodiments, if the oxygen-selective sensor determines that the oxygen content is above a predetermined level, such as 85% oxygen, and the density sensor determines that the density is within the range expected (the range expected for a high oxygen concentration in combination with mostly argon, as may be the enriched gas product from a pressure swing absorption system), then the portable cylinder 14 may be considered to be contamination free. This may be the case even if the initial pressure of the cylinder is below the preset limit previously used as an indication of contamination. If, on the other hand, the oxygen-selective sensor indicates that oxygen is within normal range, but the density sensor does not indicate a normal reading, this may be an indication that the argon normally present in oxygen-enriched gas may have been

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replaced with some other, possibly dangerous, gas. Likewise, if the oxygen sensor indicates that the oxygen concentration is below a predetermined threshold, the portable cylinder 14 may not be filled regardless of the density measurement results.

Please replace paragraph [0033] with the following amended paragraph:

[0033] Each of the embodiments disclosed in Figures 1 and 2 may utilize an intensifier 16. As previously mentioned, the intensifier 16 may effectively be a compressor, possibly having air-actuated piston-type compression chambers. For this reason, the intensifier 16 may emit audible noise. Likewise, the compressor 11 of the oxygen concentrator 10 (if present) may emit audible noise. During daytime use when a patient is awake, the noise that an intensifier 16 and/or compressor 11 of the oxygen concentrator makes may not be a problem. However, during night-time use, a patient may be disturbed by the level of audible noise generated by the trans-fill system 200. To address potential audible noise problems, embodiments of the invention may have a substantially silent mode of operation, which may be used at night and at other times when therapeutic gas delivery is desired but where audible noise may present problems.

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